

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

4,800

Open access books available

122,000

International authors and editors

135M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



A Practical Application of Time Management

Darren George
Canadian University College
Canada

1. Introduction

“A foolish consistency is the hobgoblin of little minds.” Thomas Hobbs, British philosopher and political theorist, made this oft-quoted observation in 1588. But thoughtful consistency is one of the defining qualities of time management and goal achievement: That which we do on a regular basis has potential to yield extraordinary rewards over time. Think, for a moment, the results of spending one hour a day on just about any activity. How would your life be different if you spent one hour a day exercising? Practicing an instrument? Writing up projects that lie dormant in your computer files? Improving personal relationships? Acquiring wealth?

But then Mr. Hobbs intrudes. There are millions who quite consistently watch TV programs, obsess on YouTube videos, clean their houses, hang out with friends, drink, party, or play video games. There is nothing particularly wrong with any of these activities, but those who devote their lives to such pursuits rarely end up with much to boast about. Can scientific research help us distinguish between a consistency that generates extraordinary results and a consistency that condemns one to membership among the mediocre?

As this chapter progresses four specific components of “a practical application of time management” are addressed: First is the description of a study that reveals how important time management is to personal or academic success; next the story of Ivy Lee illustrates the importance of integrating clear goals with time management; third, a real-world example and how the consideration of both psychological factors and structural factors facilitates goal achievement; and fourth, the importance of thorough preparation for time management to yield the desired results. The chapter concludes with a summary of key points.

2. Research support for the importance of time management (and clear goals)

In a recent project (George, Dixon, Stansal, Gelb, & Phiri, 2008) we explored factors associated with student success among a sample of 231 undergraduates. Participants were students from a small liberal-arts university in Alberta, Canada. The requirements for participation were extensive: completion of a lengthy questionnaire and monitoring and recording daily activities in 30-minute increments for a week. This detailed method of data acquisition allowed researchers to move beyond the frequently-biased personal perceptions to measured activities as predictors of success.

First we needed to operationalize the definition of success. Among a student sample, academic performance is clearly one criterion. So, consistent with many other studies (e.g., Trockel, et al. 2000; Lammers, et al., 2001; Lasane & Jones, 1999), we employed overall cumulative GPA (Grade-Point Average on a 4-point scale) as one success measure. But we know that GPA is only weakly correlated with accomplishment in other areas of life (Stanley, 2000), so we created a second measure called “Personal Success”.

The creation of this second measure was a bit complicated. First we instructed each subject to write down “three important goals (in any area of interest) that you presently possess.” After acquiring all the forms, several of the authors rated the three goals based on the widely-used S.M.A.R.T. principle (Specific, Measurable, Attainable, Relevant, Time specific). Each of these five areas was rated on a 7-point scale. The composite score (mean of the five sub areas) produced a scale that ranged from clearly-defined goals (7) to vague or poorly defined goals (1). Goal clarity, then, was used as a predictor variable in analyses that followed.

For the personal success measure, each subject answered 11 questions that indicated how well they had achieved (or were successfully progressing toward) the stated goals. To increase objectivity and reduce personal bias, each subject revealed the three goals to a friend who answered the same 11 questions. A composite of those 22 responses (11 by the subject, 11 by the friend) resulted in our second dependent variable, Personal Success.

Finally, since both types of goals are important to most students we created a third dependent variable called “Total Success” that weighted GPA and Personal Success equally.

A combination of the time diary measures and the questionnaire items yielded a large number of potential predictor variables. Below we present a chart that shows the primary variables and their correlations (designated as “*r*”) with GPA, Personal Success and Total Success. Remember that a *positive* correlation means that *more* of that quality results in *greater* success, whereas a *negative* correlation means that *more* of that quality results in *less* success. A larger the *r*-value (positive or negative) is associated with a greater influence. For instance: the strongest correlation is between Clear Goals and Personal Success ($r = .52$) and is strongly significant ($p < .001$). The factors that contribute to success are rank ordered from most important to least important (but still significant). Then the factors that detract from success follow, also rank ordered.

Factors that Contribute to Success	Dependent Variables		
	GPA	Personal Success	Total Success
Predictor Variables (below)			
Clear goals	$r = .28, p < .001$	$r = .52, p < .001$	$r = .49, p < .001$
Time management skills	$r = .38, p < .001$	$r = .38, p < .001$	$r = .46, p < .001$
Good diet	$r = .30, p < .001$	$r = .33, p < .001$	$r = .39, p < .001$
Good physical health	$r = .20, p = .001$	$r = .39, p < .001$	$r = .36, p < .001$
Emotional stability	$r = .12, p = .037$	$r = .37, p < .001$	$r = .30, p < .001$
Personal spirituality	$r = .14, p = .016$	$r = .31, p < .001$	$r = .27, p < .001$
Own their own computer	$r = .28, p < .001$	$r = .15, p = .013$	$r = .26, p < .001$
Self-esteem	$r = .02, \text{NS}$	$r = .35, p < .001$	$r = .23, p < .001$
Devotional time	$r = .15, p = .010$	$r = .18, p = .003$	$r = .21, p = .001$
Time studying	$r = .21, p = .001$	$r = .01, \text{NS}$	$r = .13, p = .023$
An Internal locus of control	$r = .13, p = .023$	$r = .07, \text{NS}$	$r = .12, p = .033$

Factors that Contribute to Success	Dependent Variables		
	GPA	Personal Success	Total Success
Predictor Variables (below)			
Intelligence	$r = .20, p = .001$	$r = -.06, \text{NS}$	$r = .09, \text{NS}$
Factors that Detract from Success			
Spend time in passive leisure	$r = -.22, p < .001$	$r = -.17, p = .005$	$r = -.24, p < .001$
Get up late	$r = -.26, p < .001$	$r = -.13, p = .027$	$r = -.24, p < .001$
More time sleeping	$r = -.12, p = .038$	$r = -.06, \text{NS}$	$r = -.11, p = .043$

Code: r – Pearson bi-variate correlation, p – significance of the correlation, NS – not significant
Table 1.

Just a glance shows that the most influential predictors of student success are clearly-defined goals and excellent time-management skills. Regression analysis is a procedure that reveals which predictor variables influence the dependent variable *after* the influence of other variables is considered. Regression analysis generates a much more stringent list of predictors than do simple correlations. For those not fluent in the principles of regression, a simple illustration clarifies: personal spirituality is significantly correlated with Personal Success ($r = .31, p < .001$) but when other variables are included as predictors spirituality drops from .31 to .16 ($\beta = .16, p = .003$) but still retains significance. A closely related concept is time spent in devotions. This variable is also significantly associated with Personal Success ($r = .18, p = .003$) but when other variables are included, devotional time drops to non-significance. Undoubtedly some of its predictive power was consumed by the spirituality variable.

In the regression equations the number one predictor of GPA is time management skills ($\beta = .24, p < .001$); the number one predictor of Personal Success is clearly-defined goals ($\beta = .40, p < .001$); and the top two predictors for Total Success are clearly defined goals ($\beta = .30, p < .001$) and time-management skills ($\beta = .22, p < .001$). These two far outrank more traditional predictors of success such as study time, self-esteem, emotional stability, internal locus of control, and intelligence.

The study clearly identifies the importance of clear goals and time-management skills but the question arises, how do we teach such skills? How do we apply the concepts in a productive way? That is the title and goal of this chapter: how do we make practical application of information that the present study reveals is so important?

3. The Importance of clear goals: The story of Ivy Lee

The first basic concept to be learned is that time management skills and clearly defined goals go hand in hand. Without clear goals, management of time and activities becomes Thomas Hobb’s “hobgoblin of little minds.” Dan Aslet, famous author on how to clean a house, speaks of a client who spent 40 years acquiring possessions and the next 40 dusting and rearranging them. Think back to the first few paragraphs of this chapter when we spoke somewhat disparagingly of watching TV, obsessing on YouTube videos, cleaning houses, partying, or playing video games. For most people these are time wasters, but there are people who make excellent livings critiquing TV shows, posting popular YouTube videos,

writing books about how to clean houses, marketing party favors and creating video games. So it is not the activity that determines importance, rather it is whether there are clear goals associated with that activity. The centrality of clear goals is illustrated in the following story.

In the early 1900s a gentlemen named Ivy Ledbetter Lee (1877 – 1934) met with the owner of a small steel company. Ivy told him that he could teach him and his employees to manage their time in such a way as to achieve far more than he thought possible. The owner told Mr. Lee that he already knew the importance of time management but had difficulty applying it. He told Mr. Lee, "If you can show me how to actually achieve effective time management, I am willing to pay you well." Mr. Lee told him that in 30 minutes he could teach him a method that would quadruple his current output, and stated his fee: "You apply what I teach you, and after you try it for a while, send me a check for whatever you think it is worth." The owner tried the principles taught by Mr. Lee and several months later sent him a check for \$25,000 stating that it was the most useful information he had ever acquired.

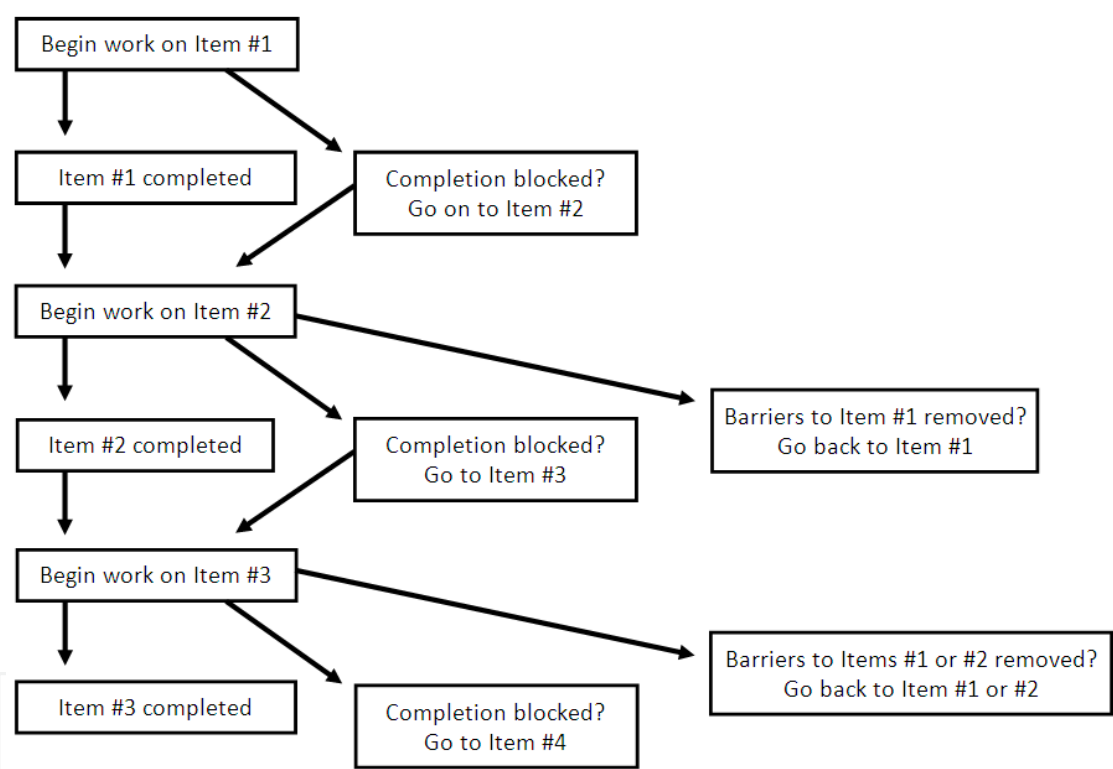


Fig. 1.

What was it that Mr. Lee explained at that time? He told the owner, I want you to take out a sheet of paper and write down the six most important things that need to be done tomorrow. The owner scratched his head and after about ten minutes had his list of six. Mr. Lee then told him, now, rank order the six from most important to least important. This process took another five minutes. Now, said Mr. Lee. When you get up tomorrow begin doing the #1 item on your list. Continue to do that item until it is finished. If some barrier prevents you completing #1, shift your attention to the #2 item and continue working on that until one of two events occur: a) Whatever blocked completion of #1 is resolved—if so, you return to #1 and complete it. b) You have completed #2 or something prevents completion of #2. In either case move on to #3 and work on that until finished, unless something blocks your completion

of #3, and so forth. If some emergency intrudes (that prevents you continuing on your numbered projects), you have either completed or made progress on the most important items. There is no other method by which you could achieve more.

What Mr. Lee described can be presented in a time-flow chart that looks something like this (previous page).

The business man that Mr. Lee spoke with was Charles Schwab, who, over the next few years would guide Bethlehem Steel to become one of the largest steel producers in the world and enable Mr. Schwab to become one of the richest men in the world.

So what characterizes the Lee plan that makes it so effective, and in what way does it differ from time-management mechanisms promoted today?

Essentially the plan provides the power of simplicity and clarity. First, goals are clearly defined – that is, it possible to identify when a goal is completed. Second there is total clarity on the sequence of goal achievement that will yield success – which goal is more important than another. The final quality that empowers success is that you always know what to do. There are never moments of indecisiveness. If you have completed one task, go on to the next. If something blocks completion, begin working on the next. If whatever blocked resolution of a prior goal resolves, go back and continue work on that project until completion. Even the vagaries of life are built into the model. If life pulls you away, depart, do what you have to do, and return to your task sequence when your circumstances allow.

When you contrast Ivy Lee's plan with today's seminars on effective time management what disappears is the simplicity. A common method promoted by many time-management firms is to write down in a day timer or some electronic time-management device the list of items you plan to accomplish on a certain day. There may be 20, 30, or 40 of them. There is a mix of personal and professional goals. You then code goals according to importance: An "A" represents "urgently important", "B" represents important but less so. Items coded "C" are the least important. Then you are instructed to rank order you're A's your B's and your C's, and complete them in that order. But I have watched scores of people attempt to create and follow such a plan, but have rarely seen success. It fails under the weight of its own complexity. At some level it looks simple: "Complete items in the stated order." What could be easier? The problem is that this process attempts to build the entire spectrum of life's activities into the system. In today's world there are so many events demanding your attention that in this case, "complete items in this order" is quite impossible.

How does the Lee plan differ? First Ivy Lee did not mix "specified accomplishment" with personal issues. For Charles Schwab the plan addressed business success. The pull of personal life was fully acknowledged, but was represented simply as something that pulled you away from the plan you had created. There was no attempt to integrate. When your personal issues resolve, then get back to the plan.

4. Application of the Ivy Lee plan in a complex world

So, one application is to avoid mixing the goal-accomplishment phase of life with other areas. I present a personal example to illustrate. As I write there are three major publication projects awaiting completion: 1) This chapter, 2) A research project dealing with sexual tension in cross-sex friendships, and 3) A research project that deals with the influence of

discrepancy factors in marital satisfaction. The chapter is due October 12 and the two research projects are scheduled for completion by November 30. Keep in mind that these projects are in addition to a full life otherwise. Major time consumers include: Coaching track and cross country at a local high school and junior college, daily practice on the trombone and piano, rehearsing and performing in three musical groups, daily exercise, not to mention being a full-time professor—teaching four classes a semester and serving on committees. At the personal level I am married with two children at home, and am a movie buff who enjoys collecting and viewing classic movies.

So, amidst all that complexity, how is it possible to create the simplicity and clarity to accomplish the three desired goals?

First off, over the years, I have become skilled at automatizing certain areas of my life: All classes, committees, coaching and rehearsals are already scheduled. I simply show up and do what I am supposed to do at those times. Other things are already tightly engineered into a current pattern such as my trombone and piano practice and exercise. Other things are not so tightly structured. I refer specifically to class prep and grading of papers. I have a TA for grading and the demands of class prep ebb and flow from class to class and topic to topic. But without scheduling, I always get prep in somehow and am quite capable of "winging it" occasionally. The classic movie obsession requires no schedule as I can enjoy it when time allows and ignore it otherwise. The big wild card (and where I think most time-management schemes self-destruct) is the area of personal life: nurturing my marriage and the growth of my children. Preparing for my wife's 50th birthday party did not fit into any schedule and became what Ivy Lee described as "when personal matters intrude". I simply accomplished less on the three projects in the week leading up to that event. What, then, can we do to maximize the likelihood of success in (in this case) the three desired areas of accomplishment?

5. Integration of both psychological and structural issues

I am a psychologist and I look at both the psychological components and structural components in creating a plan that can work. We begin with the psychological: Why do I want to publish these three projects anyway? I am a professor at a small liberal arts "teaching" university, am tenured and am not required to publish. The university encourages "scholarly activity" leading to publication and pays an honorarium when you do. But my earnings would be much greater if I spent the equivalent amount of time working at McDonalds. So in this case, the "why" is built into my self-definition. I did my grad work at a top research university (UCLA) and research that contributes to the knowledge base in my areas of expertise is something I do. However, there are many settings where the why must be explored more thoroughly.

The structural component includes that I don't teach Monday, Wednesday and Friday allowing me to be in my office between 9:30 a.m. and 3:30 p.m. A locked door and a disconnected phone allows uninterrupted time to work. Five hours per day are allotted to the three projects—a total of 15 hours a week. Fifteen hours a week should allow completion of the chapter before October 12 and allow both research projects to be submitted by the end of November. Let's be frank. I rarely get in all 15 hours. Almost always something intrudes. But if I manage only 8 or 10 hours, it is solid progress toward the desired goal.

Finally, the sequencing. The order is: 1) The chapter—it's due first; 2) Sexual tension in cross-sex friendships—that project is a bit further along, and 3) Discrepancy factors in

Marital Satisfaction. The chapter is not only due first, but is simplest: I am the only author and my wife and the editors of the book are the only ones to critique it before publication. For the two other projects data collection and entry is complete, analysis and interpretation is finished, and a rough drafts of both papers are largely in place. But there is much still to be done: Coordinating with my co-authors as we revise the paper, review by colleagues before submission, completion of tables, charts and references, and so forth.

I will work on the chapter until it is completed. Then my co-authors and I will continue work on the sexual-tension project. In a practical sense there will be a good deal of back-and-forth between the two research studies. When I send the first study off for a colleague to review, then I will work on the second until the first is returned with comments and I can continue toward completion on that one. I suspect that the two projects will be finished about the same time and submitted within a week or two of each other.

But the point is that the plan is pure Ivy Lee. Clear goals, rank ordered, and work one of the projects until completed or barriers prevent further progress. And I don't try to fit my wife's 50th birthday party into the mix. I simply accept that "personal matters intrude" and click back into the program when the fun and demands of the party are over.

Here's what the time-flow chart (introduced earlier) looks like with my own projects inserted. Notice the inclusion of the feed-back loops to indicate the back and forth that invariably takes place in large projects of this nature:

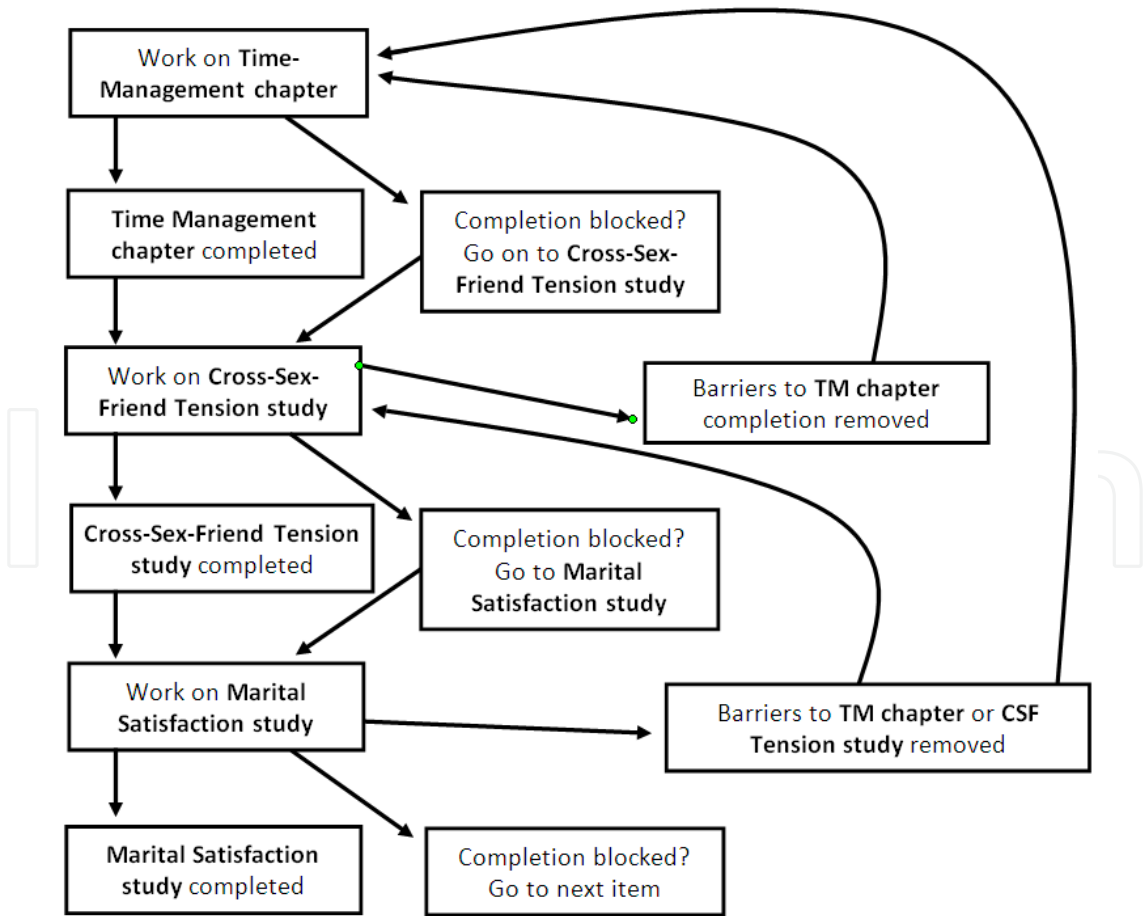


Fig. 2.

6. The importance of thorough preparation

We now take a breath and consider another aspect of effective time management. Prior to completing my Ph.D., I taught high school mathematics for nine years. It was just before my final year of teaching that Alhambra City Schools hired a motivational speaker for a presentation to the teachers of the six high schools in our district. The master presenter described teaching methods that would transform the lives of students and empower extraordinary levels of accomplishment. Having already taught high school for eight years, everything this man said made sense. I wondered why it was that all teachers did not implement the techniques he was presenting, and was excited about applying his material to my own teaching.

A few days later the school year started and I quickly found out why everyone didn't do it. It took a huge amount of time and effort for his process to work—engaging parents, lining up volunteer teacher aids, creating the worksheets and lessons plans, improving teaching skills. I soon decided it was too much effort to apply, particularly since I had already been accepted at UCLA and knew that my future was not in high school teaching. In subsequent years several key points presented that day have been integrated into my university teaching.

The point is this: If you have challenging projects and it is urgent that you finish them, it may take a good deal of planning before you create a sequence of activities that allows successful completion of these projects.

Yes, it seems in contradiction to the simplicity that Ivy Lee proposed. But let's be clear about simplicity and complexity. Simplicity is allowed by thorough preparation. An athlete preparing for a national championship five months hence will work with the coach many hours creating the plan that will yield the best performance on the big day. That is the "thorough preparation" part. Once the plan is in place then implementation is simple: Each day do what the plan says.

The last item addressed here (prior to a final summary) is the issue of how much preparation time do you need to set up a successful time-management sequence? In general the more challenging the goal and the more difficult the circumstances, the more planning time will be required. Goals are commonly divided into three types of difficulty: Goals that require a choice only, goals that require choice plus effort, and goals that require choice plus effort plus pain. We provide some examples below:

1. **Goals that require a choice only:** Goals in this category simply require choosing to do one activity rather than other activities. If I decide to read Jane Austen's *Pride and Prejudice*, I choose to spend time reading the book, perhaps 30 minutes per day, rather than doing other things. A million different pursuits fall into this category: Tidy my desk, prep my class, bake chocolate chip cookies, read through the Bible, get my car serviced, grade my quizzes. Some of you will complain, "Yeah, but sometimes it is really difficult to find the time." Those who say that are missing the point. This category of goal achievement simply involves choosing to do one activity rather than another. It is up to you, just like Charles Schwab, to determine which activities are priorities.
2. **Goals that require choice plus effort:** The "effort" part is of two kinds. One type of effort is the focus and energy required to finish the task. The other kind of effort is

associated with the complexity of your world. You may have many things pulling on your time and it requires effort to clear the space that allows you to pursue the desired goal. Writing up a research project provides a good example of “choice plus effort”. Such writing often taxes your creative and scientific abilities to the limit. Other examples might include learning to play an instrument well, building a successful marriage, refinishing a room in your house, weeding the garden, scrubbing the floor.

3. **Goals that require choice plus effort, plus pain:** These are the most difficult. Examples might include, losing weight, training to run a marathon, quitting smoking, restoring a relationship that has gone toxic, breaking off a relationship that can't work, building muscle mass through weight lifting. Notice that some of the examples deal with physical pain (training for a marathon, losing weight, quitting smoking, lifting weights) whereas others deal more with emotional or relational pain (restoring a relationship, breaking off a relationship).

There is no specific code to determine how much time and effort should be applied to planning based on these three types of goals. First, there are individual differences: what is enormously difficult for one may be easy for another. Then there is the reality that the lines between these three categories are often fuzzy. In general any movement from the low end of the scale (choice only) to the high end of the scale mandates additional time to create a plan that can work.

Planning to achieve the goals I mentioned earlier in this chapter (complete this chapter and the two research projects) required careful thought. All three projects fall into category 2 (choice plus effort). This means that I need to pursue completion when my mind is strong—fatigue kills creative effort. Then, life provides many distractions—with the potential to crowd out time to work on these projects. This requires cooperative effort between my wife and me to determine that the goal is worth achieving and that these projects should be pursued rather than other things. Thirdly it requires a specific identification of when it is possible to work on these projects. And the most important, in the complexity of this wi-fi age, is absolute clarity on the steps to achievement. I am so clear on the steps to complete present projects that it does not disorient me when life intrudes. If my wife called right now and said it is important that you come home and watch a movie with me and the kids, I would finish the sentence and head on home—particularly if it was one of my favorite classics! Sometime the next morning I would continue from where I left off—with the added benefit that my subconscious has been working to organize and create during the 12 hours I was away. "But what if the chapter was due tomorrow?" I hear someone cry. The answer is not trivial. I *planned* to be finished two weeks early. Are you acquainted with the word "proactive"?

7. Summary

In summary then, a number of critical points have been established:

- The research study described in the first few pages of this chapter identifies that clear goals and time-management skills rank as the most important factors in personal or academic success and far outrank items such as study time, emotional stability, locus of control, or IQ.

- Before time can be managed successfully your goals need to be clear, quantifiable (that is, you know when you are finished), and are psychologically and logically sound—remember the S.M.A.R.T. principle.
- Equally important is that you rank order the various projects you are attempting to complete. This ensures that your efforts are always focused on the most important.
- One formula for disaster is trying to plan and regulate all areas of your life at the same time. Instead, create a plan associated with areas that are important (but will get ignored or crowded out if you don't attend to them) and work to keep other areas of your life well-ordered so that many things just happen automatically.
- Retain the clarity of what Ivy Lee proposed: Have the plan clearly in order, and, if life intrudes, fine. Do what you need to do, and when you return, you know exactly where to take up again.
- To plan quickly and superficially assures early breakdown
- Take as much time as is required to create a good plan. The more challenging the goal, the more difficult your circumstances, the more time will be required to make certain that the plan yields the desired result. Most time should be spent when the goal is difficult (such as a #3 goal) and your circumstances are complicated.
- Consider both structural issues (already scheduled obligations and personal resources) and emotional/psychological issues when creating the plan. If you are making a plan to lose weight you better have thought through “What do I do when I get home at 4:30 and am starved?”
- Finally keep it simple. The more complex it is, the more likely it is that your efforts will fail.

8. References

- George, D. M., Dixon, S., Lund, S., Stansal, E., & Phiri, T. (2008). Time diary and questionnaire assessment of factors associated with student success. *Journal of American College Health*, 56(6), 706-715
- Lahmers, A.G., & Zulauf, C. R. (2000). Factors associated with academic time use and academic performance of collegestudents: a recursive approach. *Journal of College Student Development*. 41(5), 544-556.
- Lasane, T.P., & Jones, J.M. (1999). Temporal orientation and academic goal-setting: the mediating properties of a motivational self. *Journal of Social Behavior and Personality*, 14(1), 31-45.
- Stanley T. J. (2000). *The millionaire mind*. New York: Pocket Books; 2000.
- Trockel, M. T., Barnes, M.D., & Egget, E. L. (2000). Health-related variables and academic performance among first year college. students: implications for sleep and other behaviors. *Journal of American College Health*, 49(3), 125-132.



Time Management

Edited by Prof. Todor Stoilov

ISBN 978-953-51-0335-6

Hard cover, 106 pages

Publisher InTech

Published online 23, March, 2012

Published in print edition March, 2012

The time management is worthy goal of many human activities. It concerns variety problems related to goals definition, assessment of available resources, control of management policies, scheduling of decisions. This book is an attempt to illustrate the decision making process in time management for different success stories, which can be used as reference models by the interested audience.

How to reference

In order to correctly reference this scholarly work, feel free to copy and paste the following:

Darren George (2012). A Practical Application of Time Management, Time Management, Prof. Todor Stoilov (Ed.), ISBN: 978-953-51-0335-6, InTech, Available from: <http://www.intechopen.com/books/time-management/a-practical-application-of-time-management>

INTECH
open science | open minds

InTech Europe

University Campus STeP Ri
Slavka Krautzeka 83/A
51000 Rijeka, Croatia
Phone: +385 (51) 770 447
Fax: +385 (51) 686 166
www.intechopen.com

InTech China

Unit 405, Office Block, Hotel Equatorial Shanghai
No.65, Yan An Road (West), Shanghai, 200040, China
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元
Phone: +86-21-62489820
Fax: +86-21-62489821

© 2012 The Author(s). Licensee IntechOpen. This is an open access article distributed under the terms of the [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

IntechOpen

IntechOpen